UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,610	01/31/2006	Marco Filicori	033236-0147	1532

22428 7590 03/21/2008

FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER	
DEBERRY, REGINA M	

ART UNIT	PAPER NUMBER
1647	

MAIL DATE	DELIVERY MODE
03/21/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/559,610	FILICORI, MARCO	
	Examiner	Art Unit	
	REGINA M. DEBERRY	1647	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38 and 40-47* is/are pending in the application.

4a) Of the above claim(s) *21-33,38,40 and 41* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20,34-37 and 43-47* is/are rejected.

7)☒ Claim(s) *42* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/07, 12/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Status of Application, Amendments and/or Claims

The amendment filed 30 November 2007 has been entered in full. Claim 39 is canceled. New claims 42-47 were added.

Applicant's election of Group I, (claims 1-20 and 34-41, drawn to the pharmaceutical composition), in the reply filed on 30 November 2007 is acknowledged. Because Applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

It is noted that claims 38-41 were included in Group I because the instant claims appeared to read on product claims (See Restriction/Election; 31 October 2007). In the amendment (dated 30 November 2007), claims 38, 40 and 41 were amended to recite a method and thus will be rejoined with Group II (method of inducing ovulation). New claims 42-47 are drawn to a product comprising FSH and hCG and will be joined to Group I.

Claims 21-33, 38, 40 and 41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 30 November 2007. Claims 1-20, 34-37, 42-47 are under examination.

Information Disclosure Statement

The information disclosure statement(s) (IDS) filed 02 December 2005 and 31 May 2007 were received and comply with the provisions of 37 CFR §§1.97 and 1.98.

They have been placed in the application file and the information referred to therein has been considered as to the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19, 20 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 is indefinite because it recites the limitation "wherein the ratio". There is insufficient antecedent basis for this limitation in the claim.

Claims 20 and 36 are indefinite because they do not clearly further limit the previous claim. The instant claims don't specify the physical form of the instructions (e.g. a box with printing, a paper insert, a label).

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 44 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. **This is a new matter rejection.**

The specification as originally filed does not provide support for the invention as now claimed: "wherein the amount of hCG in the second pharmaceutical composition is **between 0.04 and 16 ug**" (claim 44).

Applicant's amendment, filed 30 November 2007, asserts that no new matter has been added and directs support to paragraph 0057 and Figure 1B for the written description for the above-mentioned "limitations".

The Examiner has located the following limitation "0.04, 0.2, 0.4, 1, 2, 3, 4, 8, 12 **OR** 16 ug hCG" in Figure 1B. The Examiner has not located the limitation, "**between** 0.04 and 16 ug". The wording or connotation of the instant claim(s) is not readily apparent from said sections.

The instant claims now recite limitations which were not clearly disclosed in the specification as filed, and now change the scope of the instant disclosure as-filed.

Applicant is required to cancel the new matter in the response to this Office action. Alternatively, Applicant is invited to provide specific written support for the "limitations" indicated above or rely upon the limitations set forth in the specification as filed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-15, 19, 20, 34-37 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skrabanja et al., US Patent No. 5,656,597 (Reference submitted by Applicant) in view of Menezo, WO 03/022303 A2 (Reference submitted by Applicant).

Skrabanja et al. teach pharmaceutical preparations of lyospheres comprising gonadotropins (abstract and column 1, lines 1-6). Skrabanja et al. teach that the lyosphere can comprise hCG or FSH or a combination thereof. Skrabanja et al. teach that the gonadotropins may be isolated from natural sources or by recombinant techniques (column 1, lines 24-29). Skrabanja et al. teach that the invention is useful for in vitro fertilization (IFV) (column 1, lines 44-60) (**applies to claims 1, 2, 11, 34 and 37**). Skrabanja et al. teach that the lyosphere can be prepared by freeze-drying droplets of an aqueous gonadotropin in solution (column 1, lines 34-40). Skrabanja et al. teach doses of FSH as 50, 75, 100, 150 or 300. Skrabanja et al. teach doses of hCG as 1, 2.5, 5, 10 or 5000 IU (**applies to claims 3-5, 10, 12-15**).

Skrabanja et al. do not teach formulations comprising FSH and hCG, wherein the IU of hCG, equals 75, 100 or 400. Skrabanja et al. do not teach specific means of packaging the formulation.

Menezo teaches methods of administering gonadotropins for improved implantation rates (page 3, lines 30-37). Menezo teach the use of hCG for the manufacture of a medicament for use in conjunction with controlled ovarian hyperstimulation (COH) in human patients using FSH (page 4, lines 15-24) and a

pharmaceutical composition for use in aiding implantation of an embryo, optionally and preferably in conjugation with COH, comprising 25-1000 IU hCG (page 4, lines 31-35). Menezo teaches a kit for use in COH with 75-200 or 150 IU FSH and 25-1000 IU or 50-100 IU of hCG (page 6, lines 20-34). Menezo et al. teach that when hCG is used in the aspects of the invention, the dosage should be in the range of 25-4000 IU, preferable 25-1000, more preferably 30-1000 or 30-500 IU and particularly preferably 50-100 IU or 75-125 or 75-100 IU or 75 or 100 or 500 or 75 or 100 to 1000 IU (page 8, lines 24-31 and page 9, lines 21-35). Menezo et al. teach that aspects of the invention is used in conjunction with COH regimens, FSH may be administered at or about 75 to 250 or 75 to 200 IU, preferably at or about 150 to 200 IU (page 11, lines 5-20). Menezo teaches a pharmaceutical compositions for use in conjunction with COH comprising 25-1000 IU hCG or 75-125 IU hCG (**applies to claims 6-9**). Menezo teaches a kit comprising daily doses of FSH and hCG (claims **19, 20, 35, 36 and 43**).

Applicant is reminded that KSR forecloses the argument that a specific teaching, suggestion or motivation is required to support a finding of obviousness. Please see the recent Board decision Ex parte Smith, USPQ2d, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007) (citing KSR, 82 USPQ2d at 1396). All of the elements in the instant composition are disclosed in Skrabanja et al. and Menezo. Furthermore, both Skrabanja et al. and Menezo teach formulations comprising FSH and hCG. The only difference is the combination of the recited IUs of FSH and hCG into an "old well-known single composition".

Thus, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to modify the IUs of a formulation comprising FSH and hCG as taught by Skrabanja et al. by formulating it with the various IUs of a formulation comprising FSH and hCG as taught by Menezo with a reasonable expectation of success. The motivation and expected success is provided by Skrabanja et al. and Menezo, who both teach formulations comprising various IUs of FSH and hCG to treat infertility. The instant claims merely recite the obvious employment of old and well-known active ingredients. One of ordinary skill in the art would have been motivated to modify Skrabanja et al. and Menezo to include adjustments of IUs because these modifications are deemed a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan. Given the current state of the art, modifying the IUs (of FSH and hCG) in pharmaceutical formulations comprising FSH and hCG is well within the skilled artisan's purview. It would have been routine for pharmaceutical kits as taught by Menezo to have written instructions/directions for use.

Claims 1, 2, 11-20, 34-37, 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skrabanja et al., US Patent No. 5,929,028 (Reference submitted by Applicant) in view of Cui et al., United States Patent Application Publication US 2004/0142887 A1.

Skrabanja et al. teach that the invention resides in a method of treating infertility by the administration of gonadotropins (column 50-57). Skrabanja et al. teach liquid

gonadotropin-containing formulations comprising follicle stimulating hormone (FSH) or human chorionic gonadotropin (hCG) or mixtures thereof (abstract; column 3, lines 15-26; column 3, lines 59-65; column 4, lines 22-30)**(applies to claims 1, 2, 16, 34, 37)**. Skrabanja et al. teach that FSH includes human FSH (column 4, lines 9-21)**(applies to claims 11)**. Skrabanja et al. teach methods of admixing in an aqueous solution at least one gonadotropin (column 5, lines 62-67). Skrabanja et al. teach that FSH doses ranges from about 25 to 1500 IU, especially 5-225. Skrabanja et al. teach that 75 IU is considered a therapeutic amount. Skrabanja et al. teach that as high as 10,000 IU and as low as 15 IU of hCG have been administered. Skrabanja et al. teach that suitable concentrations of FSH ranges from about 20-2000 IU/ml, which roughly corresponds with a concentration of 2-200 ug/ml. A preferred range is from 500-1500 IU/ml (column 6, lines 23-41)**(applies to claims 13, 45)**. Skrabanja et al. teach that the formulation may be freeze dried **(applies to claim 12-15)**. Skrabanja et al. that the formulation may be supplied in cartridges, ampoule, vials, bottles or bags and that the cartridge may contain an amount of the liquid gonadotropin formulation corresponding to one or more therapeutic dosages (column 6, lines 56-67 and claims)**(applies to claims 17-20, 35, 36)**

Skrabanja et al. do not teach microgram or milligram amounts of hCG in pharmaceutical formulations comprising FSH and hCG.

Cui et al. teach methods of administering a polymeric delivery system, which comprises one or more antigens of interest to a mammalian subject (abstract, para 0003, 0008 and 0020). Cu et al. teach hCG as an antigen of interest (para 0010). Cu et

al. teach hCG formulations comprising at least 0.1 mg/ml or greater than about 100 mg/ml, 150 mg/ml or 300 mg/ml of an antigen of interest (para 0037 and 0040)(**applies to claims 46 and 47**).

Applicant is reminded that KSR forecloses the argument that a specific teaching, suggestion or motivation is required to support a finding of obviousness. Please see the recent Board decision Ex parte Smith, USPQ2d, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007) (citing KSR, 82 USPQ2d at 1396). All of the elements parts in the instant composition are disclosed in Skrabanja et al. Skrabanja et al. teach formulations comprising FSH and hCG. The only difference is the combination of various microgram and milligram amounts of hCG into an "old well-known single composition".

Thus, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to modify the formulation comprising FSH and hCG as taught by Skrabanja et al. by formulating it with various microgram and milligram amounts of hCG as taught by Ciu et al. with a reasonable expectation of success. The motivation and expected success is provided by Skrabanja et al., who teach formulations comprising FSH and hCG to treat infertility. The instant claims merely recite the obvious employment of old and well-known active ingredients. One of ordinary skill in the art would have been motivated to modify the formulation of Skrabanja et al. to include concentration adjustments of hCG because Ciu et al. teach the amounts of hCG in pharmaceutical compositions and modifications are deemed a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan. Given the current state of the art, modifying the concentration of hCG in a

pharmaceutical formulation comprising FSH and hCG is well within the skilled artisan's purview. It would have been routine that the pharmaceutical kits, ampoules, vials and multi-use cartridges as taught by Skrabanja et al. would have written instructions/directions for use.

Claim Objections

Claims 8, 42 and 43 are objected to for the following reasons:

Claim 8 is objected to because "FSH" is misspelled.

Claims 42 and 43 are objected to because they recite improper Markush group. Amending the instant claims to recite, "selected from **the group consisting of** 1, 2, 3, 4 **and** 8 ug hCG" and "selecting from **the group consisting of** 25, 50, 75, 100 **and** 200 IU hCG", would be remedial.

Claim 42 is objected to because it depends from a rejected claim.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REGINA M. DEBERRY whose telephone number is (571)272-0882. The examiner can normally be reached on 9:00 a.m.-6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Manjunath N. Rao can be reached on (571) 272-0939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marianne P. Allen/
Primary Examiner, Art Unit 1647

RMD
3/10/08